

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

By this Amendment, Claims 35, 36 and 65 are amended, Claims 71-73 are added, and Claims 51 and 52 are canceled without prejudice. Thus, Claims 11, 35-37, 39-50, 53-65 and 68-73 are pending in this application. Claims 11, 35 and 36 are the only independent claims. Support for the amendment to Claim 35 can be found, for example, in the previous version of Claim 51 and page 9, lines 9-11 of the specification. Claim 36 is amended to incorporate the subject matter of Claim 52. Support for new Claims 71-73 can be found, for example, in the paragraph bridging pages 8 and 9 of the specification. No new matter is added.

The Official Action rejects Claims 11, 37, 41, 42, 44, 46-50 and 68 under 35 U.S.C. §112, first paragraph. The Official Action appears to believe the application fails to support the Claim 11 recitation that the colourant portion includes 0.8 to 4.0% by weight of the glass of total iron calculated as Fe_2O_3 . In particular, the Examiner appears to take the position that the 0.8% end point of the range is not specifically disclosed and therefore constitutes new matter. However, support for the 0.8% end point is found in lines 9-11 on page 9 of the specification, which discusses the total iron content of the ply of tinted glass. "Total iron content" is referred to throughout the specification as Fe_2O_3 .

In view of what appears to be a rather apparent disclosure of the claimed end point of 0.8%, the basis for the claim rejection is not fully understood. In the interest of advancing prosecution of this application, the undersigned telephoned Examiner Robinson prior to filing this response to discuss this matter and make sure the

undersigned correctly understands the concern depressed in the Official Action. The undersigned was unable to reach the Examiner. In the event the Examiner still has a concern about the Claim 11 wording, the Examiner is kindly asked to call the undersigned at the number located on the last page of this Amendment.

Withdrawal of the claim rejection based on the first paragraph of 35 U.S.C. §112 is respectfully requested.

The Official Action rejects independent Claims 35 and 36 under 35 U.S.C. §102(b) over Byker et al. ("Byker"), U.S. Patent No. 6,446,402; and rejects independent Claim 11 under 35 U.S.C. §103(a) over Byker in view of U.S. Patent Application Publication No. 2002/0025899 A1 to Higby et al. ("Higby").

Independent Claims 11 and 35 each recite a laminated glazing comprising, *inter alia*, at least one ply of body-tinted glass comprising a colourant portion including 0.8 to 4.0 % (by weight of the glass) of total iron (calculated as Fe_2O_3).

The Official Action acknowledges that Byker fails to disclose these features, but takes the position that they are disclosed by Higby. Applicants respectfully disagree.

In support of its position, the Official Action refers to Higby's disclosure in lines 5-7 of paragraph [0018] stating that the total amount of iron is from 0.3% to "about" 0.7% total iron. The Official Action states that Higby's disclosure of "about" 0.7% allows for values slightly higher than 0.7% and could overlap the currently claimed 0.8% total iron calculated as Fe_2O_3 . That position is not well supported for several reasons. First, the sentence in Higby relied on by the Official Action begins by stating that the "total amount of iron in the *batch* is critical" (emphasis added). Those skilled in the art would understand that "batch" and "glass" are not the same.

"Batch" refers to the mixture of raw materials fed into the furnace and melted to ultimately form glass. Accordingly, the sentence in paragraph [0018] of Higby is not an accurate indication of the actual percentage of Fe_2O_3 in the *glass*. In discussing the actual percentage of Fe_2O_3 in the *glass*, Higby states in paragraph [0010] that the "composition comprises a soda-lime-silica base glass and a total iron content, expressed as Fe_2O_3 , in the range of from 0.3 to 0.7% by weight." The word "about" is not included in this passage.

Second, the amount of total iron disclosed by Higby is only a relatively small range of 0.4% (i.e., from 0.3% to 0.7%). Thus, increasing the amount of total iron to 0.8% would increase Higby's overall range by 25%. Thus, even assuming the disclosed range of 0.3% to "about" 0.7% total iron referred to the actual percentage of Fe_2O_3 in the *glass*, one skilled in the art reading Higby's disclosure would not interpret the range upper limit of "about" 0.7% to encompass values up to 25% larger. To say the term "about" somehow includes values 25% higher is not supported by the reference nor logic. Moreover, one skilled in the art would not have desired to modify Higby's amount of iron Fe_2O_3 by weight to be more than 0.7% because doing so would reduce the visible light transmission below the threshold of at least 70 percent (see Abstract and paragraph [0006] of Higby).

Thus, independent Claims 11 and 35 are patentable over Byker and Higby for at least these reasons.

Independent Claim 36 is directed to a laminated glazing comprising, *inter alia*, an interlayer material tinted to have a visible light transmission of 35 % or less at a thickness of 0.76 mm.

Byker discloses that the thermochromic layer may *absorb* from a few percent up to about 50% or more of the visible and/or NIR light available in sunlight (see col. 18, lines 58 to col. 19, line 5 of Byker). The Official Action takes the position that whatever light is not absorbed by the thermochromic layer is transmitted, such that the thermochromic layer *transmits* anywhere from almost all to less than 50% of the visible and/or NIR light, which the Official Action says overlaps the claimed transmission range of 35% or less. However, there is no evidence that Byker discloses the thermochromic layer has a visible light transmission as low as the claimed 35% or less. Indeed, Byker states in lines 1-5 of column 19 that in general the static light energy absorbing material is present at a level or concentration such that the total residual light energy absorbing character results in about 10% to about 50% of the total sunlight energy incident on the window being absorbed (i.e., **50% to 90%** of the total sunlight energy being transmitted). Accordingly, one skilled in the art reading Byker's disclosure *as a whole*, as required by the MPEP §2141.02, would understand the Byker does not disclose or envision an interlayer material tinted to exhibit a visible light transmission of 35% or less at a thickness of 0.76 mm as recited in independent Claim 36.

Further, independent Claim 36 recites a visible light transmission range that is narrower than the range disclosed by Byker. According to the MPEP, if claims define a narrow range, and the reference teaches a broader range, it may be reasonable to conclude that the narrow range is not disclosed with sufficient specificity to constitute an anticipation of the claims (see MPEP §2131.03(II), citing *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006)). Further, any evidence of unexpected results within the narrow range may also render the

claims unobvious (see MPEP §2131.03(III)). Applicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing advantages associated with the claimed range (see MPEP §2144.05(III)). Here, as a result of the claimed lower visible light transmission range, tinted glass is not required. This laminated glazing is able to rely solely on the interlayer to restrict the light transmission for privacy or solar control reasons. As such, laminating facilities are able to manufacture a wider range of laminated products by using a variety of different interlayer materials and/or simply using clear glass to form the laminate. Byker fails to disclose the claimed range and the resulting benefits. Thus, independent Claim 36 is patentable over Byker for at least the above reasons.

Dependent Claims 37, 39-50, 53-65 and 68-70 are patentable over the applied references at least by virtue of their respective dependence from the patentable independent claims. Thus, a detailed discussion of the additional distinguishing features recited in these dependent claims is not set forth at this time. Withdrawal of the rejections is respectfully requested.

New Claims 71-73 are presented for consideration. These claims depend from independent Claim 36. Claim 71 recites that the visible light transmission is 18% or less. Claim 72 defines that the percentage visible light transmission divided by a percentage total energy transmission is greater than 0.5, and Claim 73 recites that the percentage visible light transmission divided by a percentage total energy transmission is greater than 1. None of the applied references discloses these features. Thus, these claims are patentable over the applied references for at least this reason, as well as by virtue of their dependence from patentable independent Claim 36.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: February 19, 2010

By: /David R. Kemeny/
Matthew L. Schneider
Registration No. 32814

David R. Kemeny
Registration No. 57241

Customer No. 21839
703 836 6620